

Product Number: 4212.04.15**BUSINESS INTELLIGENCE (BI)**

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Product Owner: Bryan Kasteler, DTS / Corrections
Product Manager: Kim Thompson, DTS / Corrections
Phone: 801-545-5643
E-mail: kimthompson@utah.gov

The Business Intelligence (BI) system provides for a multi-source data warehouse and multi-level statistical report generation throughout the Department of Corrections. The BI system is intended to enhance administrative and operational decision-making capability among executives, managers, business staffers, and research staffs. The BI system enables them to access, manipulate and display information from selected data sources using state-of-the-art products and development methodologies. The BI system provides the professional processes for the long term evolution of the data warehouse, the preparation of selected reports, training and on-going support for the growth of adhoc report creation among designated users. It fosters a cultural shift towards the successful use of information as a vital tool in the leadership and management approach.

The hours of support required for the Business Intelligence system are listed below.

Application	Support Hours	Days of Week
Business Intelligence	8:00 a.m. to 5:00 p.m.	Monday to Friday

Product Features and Descriptions

Feature	Description
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State of Utah

Product Description

Data Warehouse	A specialized, business intelligence oriented data warehouse, built by in-house database technical experts, using commercially licensed products designed specifically for the purpose, and based on identified business priorities. The warehouse draws data directly from multiple sources from both within and without the Department of Corrections as approved, and includes such systems as O-TRACK, M-TRACK, FINET, etc. The warehouse expands and adapts over time to the direction set by the project priorities and changing information demands.
Report Generation	Reports that run against the warehouse fall into several categories based on the complexity of the reports, the licenses required to create the reports and the staff designated to provide them. The most sophisticated, complex reports are created by a selected in-house group of specially trained and licensed experts from both the UDC Research and Planning Bureau and DTS experts. A mid-level, ad hoc reporting level is provided by selected business experts throughout the agency who receive specific named licenses and training. Open access to simplified reports is broadly available to general staffs.
Dashboards	Where designated, special display panels are provided that summarize reports into graphical features including dials, meters, barometers, charts with alarms, alerts, etc. These provide for drill-down capability through the organization layers. In the prison division this includes complexes, facilities, sections, units, etc. In the Adult Probation and Parole division this includes regions, offices and agent caseloads. Some features include integration of success factors on offender progress with program participation and budget costs.
BI Development Process	Specially trained staff, both business and DTS, provide professional services in project management, business function analysis, information requirements gathering, data modeling, system specification and design, data warehouse program development, data extraction, translation and loading (ETL), framework management, packaging and data marts, report specification, design and creation, and training and coaching ad hoc report writers. They work as a team and advance both the detailed BI project deliverables and milestones, and also the cultural shift towards a BI oriented leadership process.
Training	DTS provides training for ad hoc report writers in using the product tools.

Features Not Included

Feature	Explanation
User Business-side Functional Testing	UDC User Representatives perform User Testing activities for BI report releases.

State of Utah

Product Description

User Manuals	DTS does not write or update user Manuals for the BI Products.
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Rates and Billing

Feature	Description	Base Rate
Application Bug Fixes and Enhancements	Programming and fixing of BI reports as approved and prioritized by UDC.	Refer to DTS Rate for Application Development
Application DBA Support	Design and program the data warehouse to accommodate the information requirements.	Refer to DTS Rate for Application Development
Project Management	Track and coordinate all tasks for each BI Release. Coordinate modifications to other data source systems that impact or are impacted by changes being made in BI. Coordinate testing activities for BI releases. Co-Chair the BI Project Management Team. Coordinate the user duties with the BI project schedule. Manage the production release cycle.	Refer to DTS Rate for Application Development
Unit/1 st Round Testing	Perform DTS in-house regression and first round of testing of bug fixes and enhancement requests assigned to each release.	Refer to DTS Rate for Application Development

Ordering and Provisioning

Business Intelligence Content for Development Work:

Designated BI users and/or DTS support personnel report application bugs, desired features or enhancements, and requests for new system modules or sub-units. These are then discussed and prioritized by the UDC Executive Office. The long term master release plan and the content of the immediate next release are identified by the Executive Office and given to the IT Director. Once approved, the DTS staff is authorized to proceed with development work and related services on the next approved release when ready.

Hardware or special Initiatives to support BI:

When new hardware devices, significant increases in numbers of PCs, or initiatives to greatly expand or support Business Intelligence are required, the initiatives require UDC Executive Office approval to accommodate funding the orders and to consider the type and level of ongoing support that will be required.

State of Utah

Product Description

DTS Responsibilities

Provide business consultation on problem resolutions, future technical directions and potential evolving industry trends and research that may impact the BI application and its environment.

Provide ongoing Project Management Services to the overall BI project including work breakdown structures among all assigned units, making DTS and designated business-side resource assignments, estimating and establishing timelines, managing to requirements and deadlines, tracking internal project work efforts, coordinating business-side project assignments with the overall project schedules, correcting slippages and roadblocks, reporting progress and problems, making presentations to the UDC Executive Office, and chairing appropriate project groups and committees.

Provide input when appropriate to business users and managers on system technical needs for upgrades, performance improvements, desirable re-works on application designs, and suggestions for solutions to bugs or enhancements.

Document work activities on individual development content items in the Request/Bug tracking system for posting status and notifying appropriate individuals.

Receive release content approvals from the UDC Executive Office and organize and assign work duties to fulfill the requirements of the release content.

Provide preliminary triage duplication testing and assessment on bugs reported by users in the production environment to assist in verifying the bugs, their nature, impact and estimate of work effort.

Conduct and document Requirements Gathering Work Sessions with designated stakeholder and user groups to identify detailed requirements.

Develop detailed program specifications from information requirements for sign-off approvals by the designated Stakeholder Committee.

Estimate work effort in resources and time for release contents and provide timelines with milestones and deliverables.

Program and deliver system code to fulfill approved release content items and to comply with approved detailed design specifications.

Test developed code product to ensure functional operability, technical reliability, compliance with approved development standards, dependable interaction with the database(s), and compliance with design specifications.

Design, maintain and document the background database in the environment including changes to tables and related interrelationship structures, feeds to reports, etc.

Develop and maintain real-time and batch process data-level interfaces with other databases and systems as approved by UDC management.

Develop and maintain statistical reports as approved by UDC management.

Manage the live Production Release process and work with UDC staff to ensure accuracy of reports and address any bugs/problems discovered.

Notify UDC managers and users in advance when BI system releases, maintenance and upgrade events are scheduled to avoid unexpected interruptions to business activities.

Provide support to designated BI Super Users.

State of Utah

Product Description

Configure and support the BI application.

Communicate changes being made to the BI application to 3rd parties that interface with BI.
Coordinate testing of any interfaces with these applications.

Ensure DTS staff resources are adequately trained and kept current in the knowledge and skills necessary for the performance of services required by this agreement.

Agency Responsibilities

UDC executive management will provide business-side strategic direction, oversight and decision-making concerning BI and on-going module development.

Chair appropriate committees and groups to establish content requirements and priorities for work on the BI system and to provide delegated leadership in business-side project duties throughout the agency and associated departments and divisions.

Provide input and business-side leadership in the development and adjustments in project processes and procedures as needed.

Report bugs discovered or enhancements and new units requested for BI in the appropriate Service Desk tracking system, providing detail as required.

Prioritize and organize work to be done in BI into reasonable release groupings.

Receive and integrate input from DTS for technical requirements and upgrades in release planning.

Review and approve long term release content plans for the BI system.

Review and approve the content items to be included in the next immediate BI release.

Review and approve "Show Stopper" emergency requests for fixes in BI with consideration to impacts on development cycle timelines and report to DTS.

Assign and schedule UDC user resources to participate in Requirements Gathering Work Sessions to define business requirements for fixes or changes being developed in BI.

Review and approve detailed design specifications created from design sessions.

Perform User Acceptance Testing of each BI release, paying particular attention to bug fixes and requested enhancements that have been assigned to the build, reporting any errors found.

Train UDC users as necessary for deployments of BI releases.

Provide application help desk support to front line staffs in UDC facilities, centers and offices that are having trouble completing BI functions.

Report names of individual UDC staff members to the DTS Service Desk for set up in BI for access to the application.

Monitor hardware needs of UDC staffs to ensure their appropriate working access to the application.



State of Utah

Product Description

Assume responsibility for protection of the data in BI from inappropriate use and security breaches by UDC users along with DTS infrastructure staff.

Assume responsibility for protection of inappropriate exposure of the BI application and its data through proper controls of physical access to PC's, monitors, peripheral equipment, etc.

Except in specifically approved instances, all data entry, data cleanup and other direct data handling activities are the responsibility of UDC.

DTS Service Levels and Metrics

State of Utah

Product Description

In an effort to improve service to our customer agencies, DTS will measure and report on the following enterprise metric goals:

- Application Availability
- Resolution Time
- Initial Response
- First Contact Resolution
- Customer Satisfaction Surveys

Application Availability:

Application availability measures DTS' efforts to ensure agency key business applications meet the percent of availability goals identified in the agency Service Level Agreements (SLA). DTS will determine application availability based upon the collective measurement of the configuration items (both hardware and software) which are determinant to supporting the agency business services applications. These metrics will be reported each month by agency with a cumulative report showing DTS' efforts over several months and posted to the DTS Metrics web page at <http://dts.utah.gov/metrics/index.php>.

Metric Description	Target
O-Track	99.90%
M-Track	99.90%
NORM/CACTAS	99.90%
UDC COTS	99.50%
UDOCA	99.50%

Note: Application availability metrics for O-Track and M-Track are based on 24 hour / day x 7 days / week support. Application availability metrics for NORM are based on Monday – Thursday 6 AM – 6 PM support. All others are based on normal business hours (Monday – Thursday 7 AM – 6 PM).

Times exclude those tickets in a “Pending” status waiting a known bug fix.

Resolution Time:

Resolution time measure DTS' efforts to resolve customer incidents within the timelines set below based upon urgent, high, medium and low priorities. These metrics will be reported each month, by agency, with a cumulative report showing DTS' efforts over several months. These reports will then be posted on the DTS Metrics web page at: <http://dts.utah.gov/metrics/index.php>.

Total Time to Resolution	Target: Percent of Tickets Meeting Priority Timelines
Low priority - 6 Business hours	90%
Medium priority - 4 Business hours	90%
High priority – 3 Clock hours	90%
Critical priority - 3 Clock hours	90%

Initial Response:

Initial response measure DTS' efforts to respond to customer incidents within the timelines set below based upon urgent, high, medium and low priorities. These metrics will be reported each month by agency with a cumulative report showing DTS' efforts over several months. These reports will then be posted on the DTS Metrics web page at: <http://dts.utah.gov/metrics/index.php>.

State of Utah

Product Description

Time to Initial Response	Target: Percent of Tickets Meeting Priority Timelines
Low priority – 1 Business hour	85%
Medium priority – 1 Business hour	85%
High priority – 1 Clock hour	90%
Critical priority – 30 Clock minutes	95%

First Contact Resolution:

First contact resolution measures DTS' efforts to resolve customer incidents on initial contact with either our help desk or a technical specialist. These metrics will be reported each month, by agency, with a cumulative report showing DTS' efforts over several months. These reports will then be posted on the DTS Metrics web page at <http://dts.utah.gov/metrics/index.php>.

Metric Description	Target
First Contact Resolution	75% of all incidents reported resolved on initial contact

Customer Satisfaction Surveys and Reporting:

All users/customers whose technical incidents are resolved by DTS staff will be given the opportunity to respond to an on-line survey regarding their level of satisfaction with the support received from DTS. Responding to the survey is voluntary.

The chart below identifies DTS enterprise goals for customer satisfaction. Cumulative monthly reports will be created displaying the customer's level of satisfaction with DTS support. These reports will then be posted on the DTS Metrics web page at <http://dts.utah.gov/metrics/index.php>.

Customer Satisfaction Target

Metric Description	Target
Average level of satisfaction with resolution efforts	≥ 4.5 on a scale of 0 - 5
Percentage of respondents expressing satisfaction (vs. dissatisfaction)	93% of respondents satisfied